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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,331	01/15/2002	Philip Y.W. Tsui	155609-0041	7974

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EXAMINER

JENKINS, KIMBERLY YVETTE

ART UNIT	PAPER NUMBER
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2635

DATE MAILED: 11/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/051,331

Applicant(s)

TSUI, PHILIP Y.W.

Examiner

Kimberly Jenkins

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18 and 19 is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☒ Claim(s) 2, 7, 12, and 21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The Examiner acknowledges the second preliminary amendment filed on May 20, 2003 of Application No. 10/1005331. Further acknowledgements of the specifications as disclosed on pp. 1-3 have been considered.

Drawings

2. The drawings of Fig. 3 are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: block 325 as disclosed within the specification on p. 12, line 13. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a) because they fail to show the rolling-code receiver of the transmitter-receiver system as specified in the claims. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an

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amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Marked-up Drawings" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) The invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 6 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Dannhaeuser (US 4928098).

Regarding claim 6, Dannhaeuser, who teaches a method for code protection using an electronic key and a plurality of codes stored in a transmitter, teaches fixed code transmitter 1 comprising a signal transmission circuit (col. 39-42). The fixed code transmitter 1 contains a stored set of codes (Abs. 5-9), and the codes can be stored in a table format (col. 2, lines 63-64). Also, Dannhaeuser teaches a memory that includes a set of fixed codes for operating a rolling code receiver 2 (col. 2, lines 14-18 and 60-68). In turn, the receiver is a rolling code receiver because the transmitter select a new code from the stored set of codes to transmit to transmit to the receiver; thus making the receiver a rolling code receiver because it receives a new code with each activation. Dannhaeuser also discloses a processor coupled to the signal transmission circuit and memory (col. 2, lines 60-68). Additionally, Dannhaeuser expressively discloses transmitter 1 as activating the receiver 2 via the transmission of one or more codes that are stored in memory (col. 2, lines 42-48).

Regarding claim 15, Dannhaeuser teaches method of operating a rolling code receiver 2 (col. 2, lines 61-63) with a fixed code transmitter 1 comprising: transmitting from the fixed code transmitter 1 one or more codes from a set of fixed codes (col. 2, lines 63-64); and operating the rolling code receiver using the one or more codes (via a coded signal 9 that may actuate a device such as a lock; col. 2, lines 47-52)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4-5, 11, 14, 17 and 20 rejected under 35 U.S.C. 103(a) as being unpatentable by Dannhaeuser

Regarding claims 1 and 17, Dannhaeuser, who teaches a method for code protection using an electronic key, teaches a transmitter-receiver system comprising a rolling code receiver 2 that generates a sequence of unique codes based on a rolling code algorithm; and a fixed-code transmitter 1 including a memory that contains fixed code within the microprocessor (col. 2, lines 37-39 and 60-68). Furthermore the transmitter is operable to transmit one or more codes of the set of fixed codes to operate the rolling code receiver (col. 2, lines 14-18). Although Dannhaeuser discloses that combination of code sequences can be stored in either a table or an algorithm; one skilled in the art recognizes that table functionality is equivalent to an algorithm table, which is merely a list of all possible codes of algorithms. In addition, it is known to one skilled in the art for tables of codes to be advantageous with time-efficiency, for it is less time consuming. As for algorithms, it is recognized by one skilled in the art to know that algorithms us less space; henceforth, to have a table in a transmitter and an algorithm receiver is an obvious design alternative in the art depending on what practitioners desires for the transmitter-receiver system.

Regarding claims 4 and 5, Dannhaeuer teaches the rolling code receiver, upon reception of a received code, to generate a current code and to actuate a device (i.e. central lock of a motor vehicle: col. 3, lines 54-58) if the received code is within a code window between the current code and the current code plus a predetermined number of codes (col. 4, lines 31-38, col. 5, lines 10-28 and Fig. 2).

Regarding claim 11, Dannhaeuser teaches a method of operating a rolling code receiver 2 using a fixed code transmitter 1 comprising capturing a plurality of codes from a rolling code transmitter 1 corresponding to the rolling code receiver 2; identifying a set of fixed codes that will operate the rolling code receiver 2; storing said set of fixed codes in a memory of said fixed code transmitter 1; and activating said rolling code receiver by transmitting from said fixed code transmitter 1, one or more codes of said set of fixed codes (col. 2, lines 60-68 and col. 3, lines 54-62). It is recognized from one skilled in the art for tables to effectively capture codes from a table of codes by using an algorithm.

Regarding claim 14, Dannhaeuser teaches activating the rolling code receiver comprises, activating said rolling code receiver by transmitting, from the fixed code transmitter, a code pair of said set of fixed codes comprised of a first code and a second code, said second code to be within a predetermined number of codes from said first code along a code sequence (col. 4, lines 31-38).

Regarding claim 20, Dannhaeuser teaches a transmitter 1 for operating a rolling code receiver 2, comprising: a fixed code transmitter including a memory that contains a set of fixed codes said fixed code transmitter to transmit one or more codes of the set of fixed codes to operate the rolling code receiver (col. 2, lines 60-68).

6. Claims 3 and 8-10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dannhaeuser in view of Roddy et al. (US 6078271).

Regarding claim 3, Dannhaeuser teaches the memory of the fixed code transmitter contains a set of stored or generated code sequences for a for a receiver that accepts different codes (rolling code transmitter) from the transmitter (col. 2, lines 14-26); however, Dannhaeuser

does not expressively disclose a second set of fixed codes that are stored fixed code transmitter operate to transmit one or more codes to operate a second rolling code receiver.

However, Roddy, who teaches a multi-frequency programmable transmitter, teaches a universal transmitter, which can be programmed to have rolling codes for a plurality of devices (col. 4, lines 48-59) as a means to provide more security against signal interception and duplication. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the transmitter to have a set code for more than one receiver as Roddy suggests into the transmitter-receiver system of Dannhaeuser, because Dannhaeuser teaches the transmitter of having set codes for one receiver, whereas Roddy teaches the transmitter as having the capabilities to operate multiple receivers as a means to eliminate the usage of several transmitters.

Regarding claims 8 and 9, as aforementioned regarding claim 3, Dannhaeuser teaches the fixed code transmitter as having a memory that stores codes for a single receiver; whereas the modification of Roddy teaches the universal transmitter as storing codes for multiple rolling code receiver. Also, Dannhaeuser does not disclose the fixed code transmitter as comprising a means to detect a selection request corresponding to one of the rolling code receivers, (ii) retrieve one or more codes of one of the first set and second set of fixed codes corresponding to a selected rolling code receiver, nor (iii) transmit said retrieved one or more codes to actuate the selected rolling code receiver.

However, Roddy discloses the aforementioned universal transmitter that is capable of activating a selected rolling code receiver via the selection means of one or more push-buttons on the transmitter (col. 1, lines 37-45 and col. 4, lines 48-54). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have the

transmitter to have a receiver selection detection means (push-buttons) in order to operate another rolling code receiver as Roddy teaches into the transmitter-receiver system of Dannhaeuser, because Dannhaeuser teaches the aforementioned limitations regarding claim 3, and Roddy discloses the transmitter as having a means to select another receiver to operate via the selection buttons to eliminate the confusion and expenses of several transmitters.

Regarding claim 10, Dannhaeuser teaches the fixed code transmitter of storing predetermined number of codes between 2 and 100 in providing an example where the number of codes stored may be 10 or 11 (col. 3, lines 31-41).

Regarding claim 13, Dannhaeuser teaches the limitations of claim 11; however, Dannhaeuser does not disclose a means for a second rolling code receiver to capture a second plurality of codes from an additional rolling code transmitter corresponding to an additional rolling code receiver; identifying an additional set of fixed codes, which operate the additional rolling code receiver; storing the additional set of fixed codes in the memory of said fixed code transmitter; and accessing one or more of said additional set of fixed codes based on a user selection; and transmitting, from said fixed code transmitter, one or more codes from said additional set of fixed codes to activate the additional rolling code receiver. Claim 13 meets the limitations of rejected claim 8.

7. Claim 16 is rejected under 35 U.S.C. 103(a) as being Dannhaeuser in view of Doppelt et al. (US 596937).

Regarding claim 16, Dannhaeuser teaches fixed set of rolling codes; however, Dannhaeuser does not disclose the fixed code as being a subset of a rolling code sequence of the rolling code receiver.

However, Doppelt, who teaches a garage door opener with light control, expressively discloses the fixed code as being a portion of the rolling code, wherein the fixed code portion is serial number of the transmitter (col. 6, lines 38-42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the fixed code to be a subset of the rolling code in order to identify the transmitter as Doppelt suggests into the coding of Dannhaeuser, because Dannhaeuser teaches the rolling codes as being fixed and stored within a transmitter, whereas Doppelt teaches the fixed code to be a means to identify the transmitter.

Allowable Subject Matter

8. Claim 2, 7, 12, and 21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The aforementioned claims contain limitations that prior art of record does not disclose, because prior art of record does not expressively disclose the number of codes within a transmitter as being less than the number of stored rolling codes within a rolling code receiver, because prior art of record discloses that it is standard for the transmitter and the receiver to have the same quantity of identical codes (Dannhaeuser col. 1, lines 20-24) in order to properly activate the receiver in a timely fashion.

9. Claims 18-19 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. Furthermore, independent claim 18 contains the allowable subject matter of claims 2, 7, 12, and 21, and claim 19 is allowed by default of being dependent on an allowable claim.


10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly Jenkins whose telephone number is 571.272.3064. The examiner can normally be reached from Monday – Friday between the hours of 7am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Horabik can be reached on 703.305.4704. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimberly Jenkins
Examiner
Art Unit 2635
28 October 2004

KYJ


BRIAN ZIMMERMAN
PRIMARY EXAMINER